

For Research Use Only

CoraLite® Plus 488-conjugated SMAD2 Recombinant antibody

Catalog Number:CL488-83841-5



Basic Information

Catalog Number: CL488-83841-5	GenBank Accession Number: BC014840	Purification Method: Protein A purification
Size: 100ul , Concentration: 1000 µg/ml by Nanodrop;	GeneID (NCBI): 4087	CloneNo.: 240950A11
Source: Rabbit	UNIPROT ID: Q15796	Recommended Dilutions: IF/ICC 1:50-1:500
Isotype: IgG	Full Name: SMAD family member 2	Excitation/Emission maxima wavelengths: 493 nm / 522 nm
Immunogen Catalog Number: AG3237	Calculated MW: 467 aa, 52 kDa	
	Observed MW: 58 kDa	

Applications

Tested Applications: IF/ICC	Positive Controls: IF/ICC : HepG2 cells,
Species Specificity: human, rat	

Background Information

SMAD2, also named as MADH2 and MADR2, belongs to the dwarfin/SMAD family, contains 1 MH1 (MAD homology 1) domain and 1 MH2 (MAD homology 2) domain. SMAD2 is a receptor-regulated SMAD(R-SMAD) that is an intracellular signal transducer and transcriptional modulator activated by TGF-beta and activin type 1 receptor kinases. This protein may act as a tumor suppressor in colorectal carcinoma. It is phosphorylated on one or several of Thr-220, Ser-245, Ser-250, and Ser-255. In response to TGF-beta, It is phosphorylated on Ser-465/467 by TGF-beta and activin type 1 receptor kinases, and then able to interact with SMURF2, recruiting other proteins, such as SNON, for degradation. In response to decorin, the naturally occurring inhibitor of TGF-beta signaling, it is phosphorylated on Ser-240 by CaMK2. It is phosphorylated by MAPK3 upon EGF stimulation; which increases transcriptional activity and stability, and is blocked by calmodulin. In response to TGF-beta, it is ubiquitinated by NEDD4L, which promotes its degradation. In response to TGF-beta signaling, it is acetylated on Lys-19 by coactivators, which increases transcriptional activity. The molecular weight of unphosphorylated forms of Smad2 is 52 kDa and phosphorylated forms of Smad2 is 58 kDa. (PMID: 9006934)

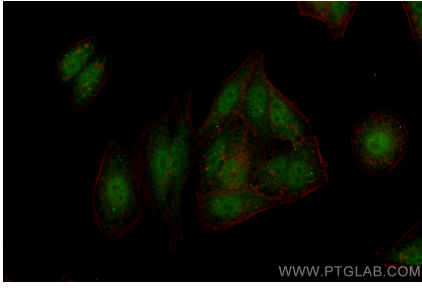
Storage

Storage:
Store at -20°C. Avoid exposure to light. Stable for one year after shipment.
Storage Buffer:
PBS with 50% Glycerol, 0.05% Proclin300, 0.5% BSA, pH 7.3.
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
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Selected Validation Data



Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using Coralite® Plus 488 SMAD2 antibody (CL488-83841-5, Clone: 240950A11) at dilution of 1:200.